

CHAPTER 1

Existing Conditions



The study area for this report is primarily focused on Going-to-the-Sun Road, with other areas of Glacier also included as appropriate to the discussion. Information on areas outside the park is also provided within this Existing Conditions chapter to lay the groundwork for an overall understanding of the region (Figure 1). The following towns surrounding the park (those within approximately 50 miles) are referenced in

North of Glacier

- Waterton Park (in Waterton National Park)
- Cardston, Alberta

East of Glacier

- St. Mary
- Babb
- Browning
- East Glacier Park
- Kiowa

South and West of Glacier

- West Glacier
- Coram
- Hungry Horse
- Columbia Falls
- Whitefish
- Kalispell
- Essex
- Martin City
- Bigfork
- Polson
- Polebridge

relation to their transportation systems and amenities used by park visitors. By understanding the existing condition of the transportation system and visitor use in Glacier, recommendations can be made for improvements to parts of the system. This chapter will provide a brief history of transportation and visitor use within the park. The existing condition of the transportation system will also be described, based on available information. Finally, visitor use of Going-to-the-Sun Road will be described.

Chapter 1: Existing Conditions

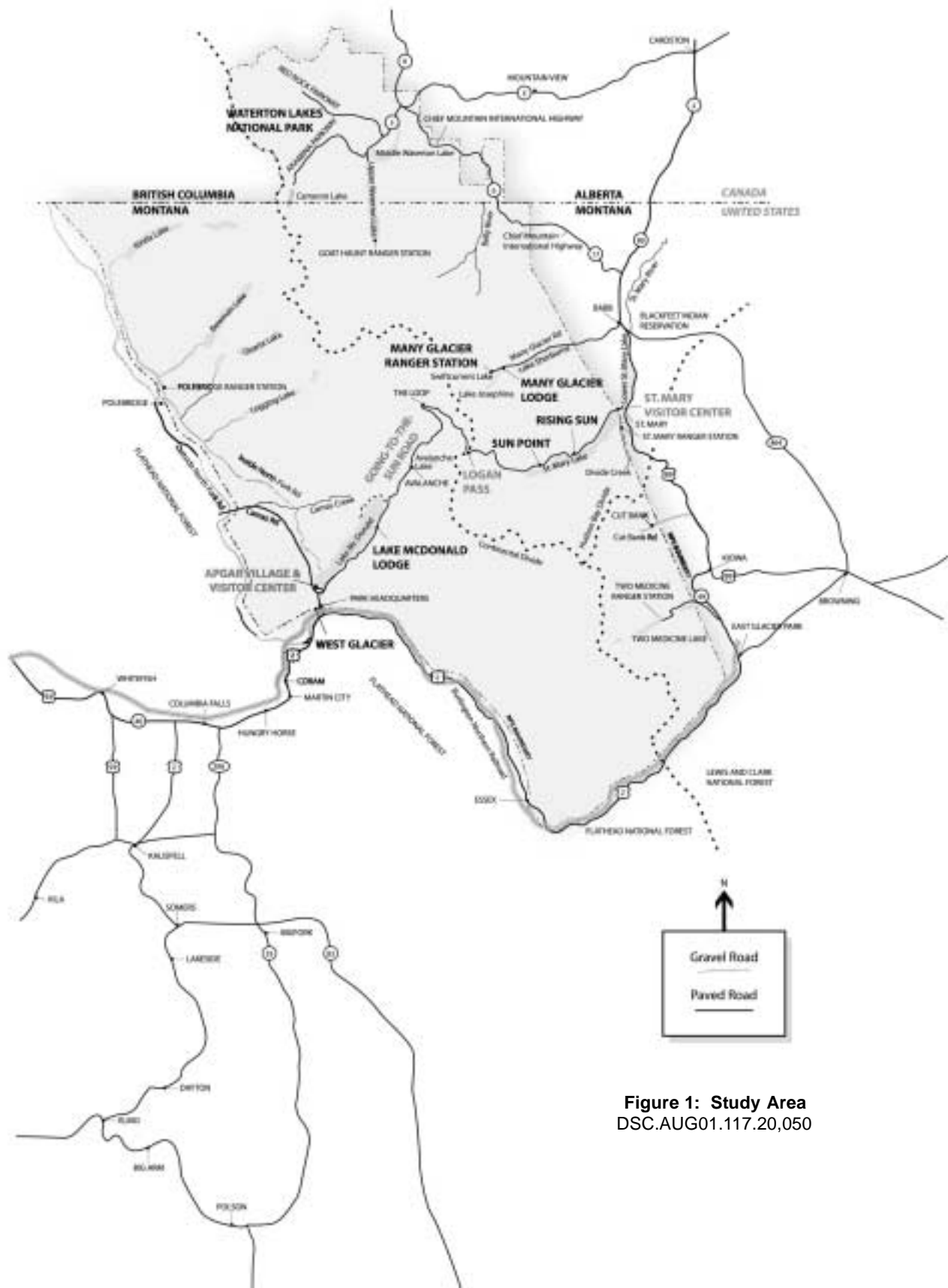


Figure 1: Study Area
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The History of Transportation and Visitor Use in Glacier

Glacier saw continued growth in visitation from the time of its designation as a national park until the early 1980's. Since then visitation numbers have been inconsistent, and may have leveled off in recent years. Figure 2 shows Glacier's annual visitation from 1932 (around the time of the International Peace Park designation and the opening of the Going-to-the-Sun Road) to 2000.

To compete with Northern Pacific's Yellowstone rail system, Great Northern financed construction of the Glacier rail line.



In 1892, the Great Northern Railway traveled over Marias Pass and along what is now the southern boundary of the park. This marked the beginning of the greatest increases in visitation, as more visitors had access to this remote area of the country.

After Glacier's official designation as a national park, a supplemental transportation system was created based on the rail line, providing opportunities to see more areas of the park. The Great Northern was responsible for most early developments in Glacier, financing construction of roads, trails, bus systems, a lake-launch system, hotels, chalets, teepee camps, and a telephone

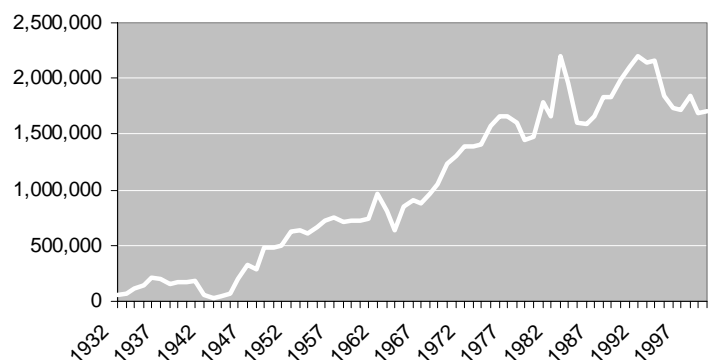


Figure 2: Glacier National Park Annual Visitation, 1932 to 2000



Great Northern's open coach car gave early visitors an unfettered view of Glacier's wonders.

communication network. Great Northern's interest in this area was fueled by competition with Northern Pacific, which had established a similar system for Yellowstone National Park.

The coming of the automobile produced even more drastic changes in the park. The completion of Going-to-the-Sun Road marked major increases in visitation as people now had the freedom to access the park using their own automobiles. The Road is still considered an incredible engineering feat, and has been listed on the National Register of Historic Places and designated a National Historic Civil Engineering Landmark and a National Historic Landmark.

By the late 1930's and early 1940's, the type of visitor to the park was changing. The earlier railroad package-tour visitors were rapidly being outnumbered by independent automobile travelers, thanks in large part to the opening of the Road. Facilities were needed for this new type of traveler, since the old railroad hotels were not really appropriate for them. Park managers began to realize that visitation was increasing too rapidly, and Glacier's resources could not sustain such growth. Contemporary government policies advocated "wise-use development," which promoted activities within the park that would please the greatest number of people. More visitor facilities were built at that time, and more land was used for roadways and other amenities to accommodate ever-increasing numbers of people. Park managers began to see that preservation of natural resources would need to be addressed, as the park could not sustain the continual increases in visitor use. They began to resist the construction of new roads. Chief Mountain International Highway was opened in 1936, and this

marked the end of major new roadway construction in the park until the opening of Camas Creek Cutoff Road in 1968.

In 1956, "Mission 66" commenced. This national ten-year program was started for the dual purposes of visitor management and facility improvement. Under Mission 66, the St. Mary and Logan Pass Visitor Centers and park headquarters were built, campground facilities and sanitation operations were improved, and interpretive services within the park were expanded. The character of these structures appears today to be at odds with the park's historic beginnings and reflects the modern view of the times rather than the historic character of the early 1900's. These structures can be seen as non-historic additions and indicate the need for improved parkwide design guidelines prior to any rehabilitation of these structures.

Much of the park's transportation infrastructure underwent little change in the latter part of the century. Visitation trends have continued to increase, though at a declining rate. Bicycle trends have increased from the seventies on. In 1973 the park instituted bicycle prohibitions during peak periods to prevent conflicts with motor vehicles. Transit options to alleviate congestion on the Road and at pullouts were first discussed at Glacier in 1978. Due to increasing concern for vehicular safety and damage to the historic road, size restrictions have been imposed to limit the length and width of vehicles traveling the Road.

Recent changes in the visitor experience are equally varied. Beginning in 1982, concession services have been operated primarily by contract with Glacier Park, Inc. The historic red busses have been temporarily replaced by modern air-conditioned van service. Sun Tours now operates a tour focusing on the important Native American stories in the park. Boat tours and horseback trips are also provided through separate concession contracts. Newly installed wayside exhibit panels have brought color and quality along with new information and stories to the roadside.

Careful consideration is needed to continue the long tradition of quality visitor experience along the Road while at the same time addressing safety needs and threats to historic and natural resources. Glacier now has an opportunity to address this need with thoughtful implementation of options presented in this Study.

Transportation At Glacier

Roadway Types and Features

Table 1 provides an inventory of the roadway system features in Glacier.

Table 1: Glacier National Park Roadway Inventory

Feature	Number of Features or Total Miles	Additional Information
Unpaved roadway	57 miles	Most are 18 to 24 feet wide and have little or no shoulder area.
Bridges	51	
Tunnels	2	<ul style="list-style-type: none"> • West Side Tunnel – 186 feet long • East Side Tunnel – 440 feet long
Park entrances	7	<ul style="list-style-type: none"> • Camas Creek • Polebridge • West Glacier • St. Mary • Many Glacier • Two Medicine • Cut Bank
Going-to-the-Sun Road	50 miles	<ul style="list-style-type: none"> • Paved surface • Spans the width of Glacier • Crosses Continental Divide at Logan Pass • Uniform grade of about 6 percent in alpine section

Due to the seasonal nature of the area and difficult winter conditions, many roads are closed or partially closed for a majority of the year. The park's main attraction, Going-to-the-Sun Road, is closed over a significant portion of its length including the Logan Pass area from mid-October to mid-June (this varies somewhat depending on seasonal weather conditions). The Chief Mountain Highway, located in Glacier's north-east corner, is typically closed from the end of September to mid-May. Many minor roads in the system are not maintained and are closed during the winter season as well. Visitor use drops off sharply at this time as little of the park is accessible except by short segments of the main roadways, on foot, or by other forms of backcountry transportation such as horses, skis, and snowshoes.

Roadway Use and Maintenance

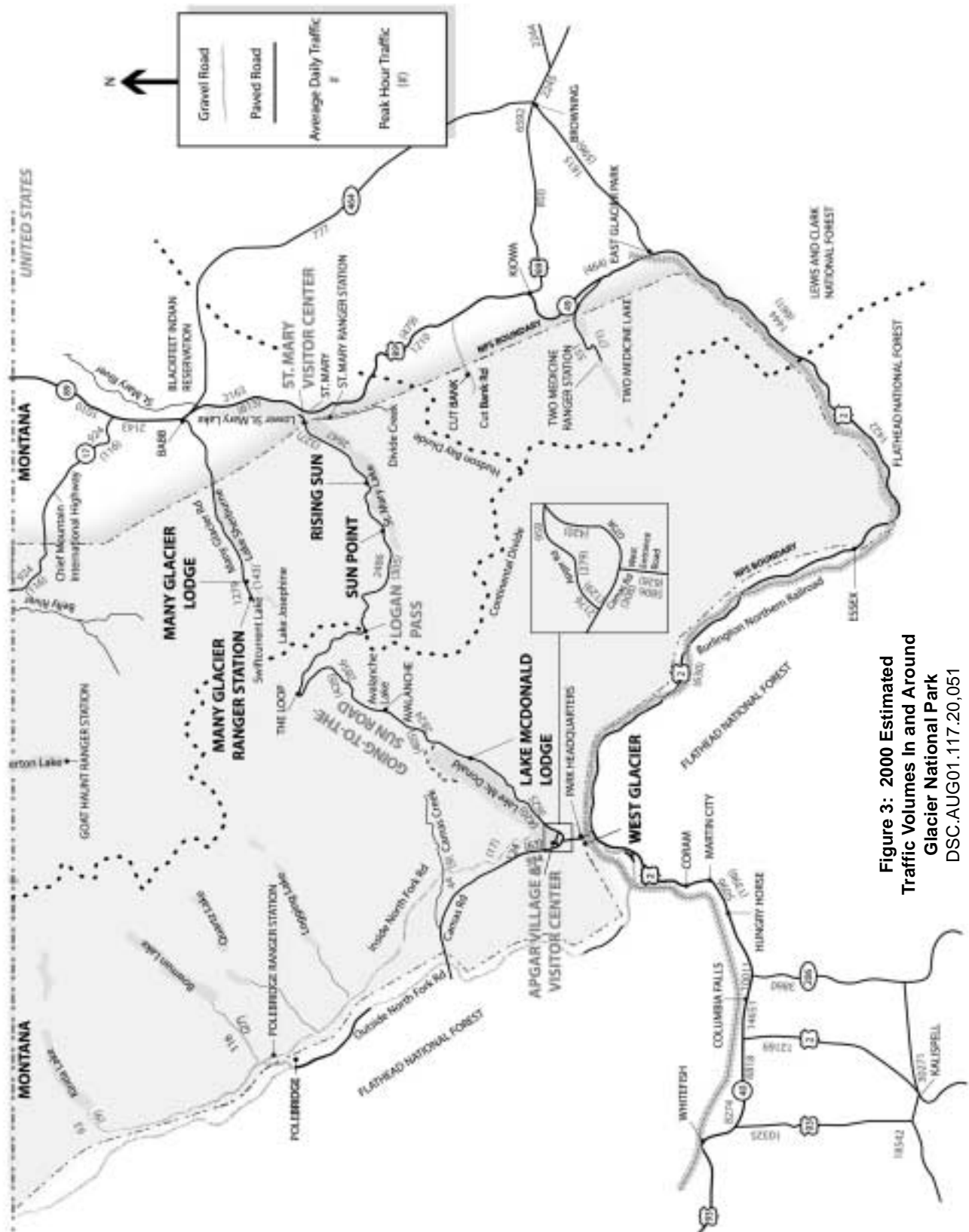
Traffic Volumes Within the Park and on Roads Surrounding the Park. Traffic volume information presented in this report is based on past traffic counts. No new traffic counts were conducted for this study. Figure 3 shows estimates of average daily traffic (ADT) and average peak hour traffic for 2000 on roads within the park and highways outside the park. These estimates were prepared by adjusting old traffic count data based on park visitor numbers for 2000 and the year of the count. Appendix B shows the ADT and Peak Hour counts in tabular form, as well as the date of the count and the sources of the count data.

Vehicle Restrictions. To reduce congestion and improve safety on the Road, vehicle restrictions have been put in place. From Avalanche Creek to Sun Point (this includes Logan Pass and the steep, narrow alpine section) vehicles wider than eight feet (including mirrors) or longer than 21 feet (including bumpers) are prohibited. Oversize vehicles must travel around the park via U.S. 2. Bicycles are prohibited on the Road from Apgar to Sprague Creek Campground (both directions), and from Logan Creek to Logan Pass (eastbound only) from 11:00 a.m. to 4:00 p.m. These bicycle restrictions are in effect from June 15 to Labor Day.

The maximum posted speed limit along the Road is 45 miles per hour. The alpine section, however, has a lower speed limit due in small part to congested areas, but primarily to the steep, narrow, and winding alignment.

Maintenance. Most of the park's roadways are not maintained or plowed during the winter season. The exceptions are Going-to-the-Sun Road as far as Lake McDonald Lodge on the west side, and Rising Sun on the east side; and Camas Road from Going-to-the-Sun Road to the McDonald Creek Bridge area. Plowing on the remainder of the park's roadways begins in April and is not typically completed until June (this varies somewhat depending on seasonal weather conditions).

An issue of major concern to the park is the condition of the Going-to-the-Sun Road. Since the 1950's, no substantial rehabilitation has taken place in the critical alpine section of the Road. The passage of the Surface Transportation Assistance Act (STAA) in 1982 encouraged the Federal Highway Administration (FHWA) and the National Park Service (NPS) to develop a road improvement program. This program facilitated the 1990's reconstruction of 20 miles of the Road, costing \$22 million. However, most of the reconstruction took place on lower sections, with less than one mile reconstructed in the alpine section.



**Figure 3: 2000 Estimated
Traffic Volumes In and Around
Glacier National Park**
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Currently, typical maintenance of the Road consists of snow removal and other spring-opening activities, clearing debris from avalanches and slides, periodic chip seals, and moving rocks off the road. Current maintenance practices and funding levels do not adequately provide for maintenance of drainage, guardwall, retaining wall, road structure, or road surface needs. This results in the ever-worsening physical, structural, and safety condition of the Road.

Results of Previous Studies. Other studies of Going-to-the-Sun Road have been conducted in the past. These include the *Transportation Plan* for Glacier (U.S. Department of the Interior/National Park Service, 1990) and the *Traffic Safety Study* (Robert Peccia & Associates, July 1994). Some of the recommendations made within these documents were used as guidelines for completed transportation improvements, while others have not yet been (or will not be) implemented. The following are examples of improvements that have resulted from these transportation studies:

- Vehicle length restrictions were implemented as recommended, except with a 21-foot length restriction instead of the 20 feet recommended.
- Turnout recommendations were not followed precisely; however, they were considered during planning and design of roadside improvements.
- Recommendations to change the intersection of Going-to-the-Sun Road and Camas Road to a three-way stop were followed; however, the recommendation to construct a visitor orientation turnout south of the intersection has not been implemented, but is currently being addressed in the 2001 West Entrance improvement project.
- The recommendation to change the Camas Road/Apgar Loop Road intersection was implemented.
- Bicycle restrictions continue as recommended.
- For the Visitor Center at Logan Pass, many recommendations were followed and additional improvements were implemented. Thirty to 40 informal and social roadside parking spaces were removed, parking in the main lot was increased, pedestrian usage and vehicular traffic in the parking area were separated, curbing and/or barrier rock was installed along the roadside to discourage parking, and the west intersection was realigned.
- The realignment of the Going-to-the-Sun Road intersection at Sun Point is scheduled for construction in 2002.

Available Transportation and Transportation-Related Recreation Within the Park

Several forms of transportation are allowed within the park, most primarily as forms of recreation. One can travel by bus, boat, horseback, foot, bike, or automobile. Because of the sensitive nature of the environment and the fact that over 95 percent of the park is being managed as wilderness, snowmobiles are not permitted.

Bus Service/Transit. Transit service within the park is provided by the following concessioners:

- **Glacier Park, Inc. (GPI)** is the main concessioner for Glacier National Park, managing most lodging, restaurants, and transportation services. GPI provides both narrated tours and a shuttle service along the Road. Tours run from late May through late September while the shuttle service operates from July 1 through Labor Day weekend.

Historic “red” buses dating back to 1936 have been in use for tours until recently, when structural problems led the park and GPI to temporarily replace them with a fleet of Dodge vans. Ford Motor Company is currently in the process of repairing and refurbishing one red bus as a prototype. It is Glacier’s goal, through the National Park Foundation’s Proud Partners Program (Ford Motor Company), to

refurbish the entire fleet of historic red buses in hopes of having them back on the Road in 2002. These refurbished buses will be equipped to run on both propane and standard fuel systems.



Historic red buses have been popular with visitors since 1936.

The GPI tour service provides an interpretive narrative during full and half-day tours on the west side of Glacier, and full day tours on the east side, leaving once daily. A tour takes anywhere from three to nine hours, depending on departure location and the

route taken. Tours depart from Lake McDonald Lodge, Glacier Park Lodge, Many Glacier Hotel, Village Inn at Apgar, and Rising Sun Motor Inn. The majority of passengers who use this service are members of package tour groups who utilize the GPI service because of vehicle length restrictions which prevent large commercial buses from traversing the Road. Tour fares range from \$20.75 to \$61.00 per person (2000 rates) depending on the route taken.

The GPI shuttle service provides one-way and round-trip service along the Road. These van shuttles stop at trailheads, hotels, and campgrounds along the Road (about twelve scheduled stops at park attractions). The shuttle also provides one-way trips, if requested, between several lodging facilities within the park. One-way services such as the Many Glacier to Logan Pass route leave two to three times daily; shorter trips leave more frequently. Shuttle fares range from \$8.00 to \$16.75 per person (2000 rates) depending on the route taken.

For 2000, the total number of tour riders was 21,772 and the total number of shuttle riders was 1,438. This is a decrease from 1999 ridership, which was 30,842 on the tours and 2,717 on the shuttle. Several factors may have contributed to this decline, including the use of the vans, as some riders feel that they are less attractive, less comfortable, have less effective capacity, and limit viewing opportunities as compared to the historic red buses.

In addition to other services described above, GPI provides shuttle service from Belton Station in West Glacier to the Village Inn (\$2.00 per person) or Lake McDonald Lodge (\$4.75 per person).

- **Sun Tours** is another concessioner for Glacier, providing interpretive motor tours which focus on Blackfeet culture and history relating to Glacier's natural features. These tours run from mid-June to September 30 with a staff of about five. The tours travel the length of the Road and back in a full day tour, departing from St. Mary, East Glacier, and Lake McDonald Lodge once a day. Pickups are also made at Johnson's Campground, St. Mary KOA Campground, St. Mary Lodge, St. Mary Visitor Center, and Rising Sun Campground.

The round trip tour from East Glacier leaves at 8:00 a.m., makes the scheduled pick-ups outside and inside the park, travels over the Road to Lake McDonald Lodge for a one-hour lunch stop, and returns to East Glacier by 4:30 p.m. Round trip fares for this tour (2000 rates) are \$45 for adults, \$20 for children five to twelve years of age, and free for children under five.

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The St. Mary tour leaves at 9:15 a.m., follows the same route as the East Glacier tour, and returns to St. Mary Lodge by 3:30 p.m. Round trip fares for this tour (2000 rates) are \$40 for adults, \$15 for children five to twelve years of age, and free for children under five.

Tours also leave from Browning based on demand.

Boating. Commercial boat tours are provided on Lake McDonald, Waterton, Swiftcurrent, St. Mary, Josephine, and Two Medicine lakes. Small boat rentals (i.e., canoes, kayaks, and rowboats) are available on Lake McDonald, Swiftcurrent, and Two Medicine lakes. Boats are also available to shuttle hikers to trail-heads on some park lakes.

Two separate boating companies run tours within the park. Glacier Park Boat Company, a park concessioner, manages commercial boat tours and small boat rentals on the lakes listed above except Waterton Lake. Waterton Inter-Nation Shoreline Cruise Company runs a boat tour and transportation services on Waterton Lake between Canada and Goat Haunt in Glacier.



Commercial boat tours transport visitors across the crystal waters of some of Glacier's most popular lakes.

Boat ramps are provided at some of the park's lakes to allow private recreational boating use of the lake.



Horseback riding, whether on a pack trip or a one-hour trail loop, provides a taste of the way Glacier's first visitors toured the park.



The lack of bicycle trails, along with bike restrictions between Logan Pass and Lake McDonald, are a common source of visitor complaints.

Horseback Riding. Horseback riding tours are run in the park. The only authorized concessioner in Glacier is Mule Shoe Outfitters. This company provides guided horseback riding and packing services at Apgar, Lake McDonald, and Many Glacier. Private individual use of park trails for horseback riding and packing is also allowed; however, access to the trailheads by horse trailers is limited by the Road's vehicle length restriction.

Hiking. Hiking, from short one-hour trips to extended overnight backcountry excursions, is one of the primary visitor experiences at Glacier. All trails are open to unguided use. Many hiking services are also provided in and around the park. Guide services available in the park provide for backpacking and day hiking, and offer access to backcountry chalets. GPI also offers a limited hiker shuttle service on Going-to-the-Sun Road and on Many Glacier Road.

Rafting. Several companies provide guided rafting services under permit with the U.S. Forest Service for whitewater rafting and fishing trips on rivers surrounding Glacier. These trips last from three hours to six days.

Biking. Biking is allowed on all park roads as well as on two short bike trails in the West Glacier/Apgar area. Safety measures put in place by the park prohibit biking on Going-to-the-Sun Road from Apgar to Sprague Creek Campground (both directions), and from Logan Creek to Logan Pass (eastbound only) from 11:00 a.m. to 4:00 p.m. These bicycle restrictions are in effect from June 15 to Labor Day.

Roadways provide an extremely popular bicycling opportunity when automobile traffic is restricted by snowplowing operations in the spring and, to a lesser extent, in the fall. Bicycling is also popular in the northwest part of the park in the spring when roadbeds are closed to vehicle traffic to allow them to dry.

Several different companies also provide bike trips in Glacier, including shuttles to Logan Pass for a long downhill ride back to West Glacier.

Forms of Transportation Available in Areas with Close Access to Glacier

There are several forms of transportation available to bring visitors from all over the United States to the area surrounding Glacier. These are discussed below. However, there is no scheduled regional link to transport visitors easily and inexpensively to Glacier. (Amtrak rail transit is the exception. It provides good passenger connections to Glacier.) Visitors are forced to rely on taxis, limousines, or other rented vehicles to get to the park. These services are also discussed below.

National Transportation

There are three choices for transportation to the area around Glacier other than private automobile. These are:



Amtrak provides seasonal service to Glacier Park Station, as well as Belton and Essex. Regional stops include Cut Bank, Browning, and Whitefish.

- **Amtrak** train service travels east and west from Chicago to Seattle on the Burlington Northern & Santa Fe rail line. Amtrak provides stops in many areas near Glacier, including Belton Station in West Glacier, Glacier Park Station in East Glacier (seasonal), and Essex. Regional stops include Cut Bank, Browning (seasonal), and Whitefish.
- National bus service to the area is provided by **Greyhound** bus lines, which provides scheduled service to Whitefish.
- **Glacier Park International Airport** in Kalispell is the only major airport within the project area. Four carriers serve the airport. Delta Airlines offers jet service that connects through Salt Lake City, Utah. Horizon Airlines, an affiliate of Alaska Airlines, offers jet service from Kalispell to Seattle, with connecting flights to numerous Northwest and Pacific coast cities. Northwest Airlines offers jet service that connects through Minneapolis, Minnesota. Big Sky Airlines offers daily small-plane service to Spokane, Washington, and several cities in Montana.

Calgary, Missoula, Great Falls, and Spokane provide other gateway airports to the Glacier area.

Local Connections

To get from the national transportation service hubs (airport, Greyhound station, or Amtrak station) to Glacier, visitors must use one of the following:

Two airport shuttles serve Glacier Park International Airport. Service is not scheduled to Glacier entry points, and their use by Glacier visitors is limited. The table below compares rates for service to various locations in the park, as provided by the following two companies:

- **Airport Shuttle Service/Kalispell Taxi** provides shuttles based on demand. The service has fourteen vehicles available, including private taxis and small transit buses. Three of the vehicles are ADA-compliant. The service can accommodate as many as fourteen passengers per trip, and will drop off visitors at any location in the park (in areas that the Park Service allows for non-concessioners, and limited by seasonal road closures). Some of the rates below depend on seasonal closures. If the shuttle has to travel around the park rather than through it to reach a specific destination, fares will change according to mileage.

- **Flathead-Glacier Transportation Company** also provides shuttles from the airport to Glacier, based on demand. The service has ten, fifteen-passenger vehicles. Visitors can be dropped off at any location in the park (also within areas that the Park Service allows for non-concessioners, and limited by seasonal road closures).

Table 2: Transportation Services and Costs

Destination	Airport Shuttle Service/ Kalispell Taxi (\$1.25 per mile plus \$2.00 per person)	Flathead-Glacier Transportation Company (\$1.40 per mile plus \$2.00 per person)
West Glacier	\$30.00	\$33.00
Apgar	\$34.00	\$38.00
Lake McDonald	\$50.00	\$56.00
St. Mary	\$100.00	\$112.00
Many Glacier	\$125.00	\$140.00

Rental Vehicles/Taxis/Limousine Services. Rental vehicles are one of the main forms of transport from outlying communities to the park. Several major rental companies serve the area from Browning, Essex, East Glacier, West Glacier, Kalispell, and Whitefish.

Taxis are also available in limited areas. Airport Shuttle Service/Kalispell Taxi and Flathead-Glacier Transportation Company are the main suppliers of taxi/shuttle services. Limousine services are available from Kalispell, but are not typically cost-effective and are therefore used by a small minority of visitors.

- **Rocky Mountain Transportation (RMT)**, the largest transportation provider in Flathead County, provides regional service headquartered in Whitefish, Montana. RMT formerly operated the Going-to-the-Sun Road shuttle for about five years (1992-1996; now operated by GPI), and currently provides limited, on-demand service to Glacier. RMT now operates specific services in the region such as school buses, vans for railroad crews, and Big Mountain transit (the “Snowbus”) which provides shuttle service from Whitefish to the Big Mountain ski area and back. Other RMT services include a Hertz rental car franchise and shuttles from local lodging facilities in Kalispell and Whitefish to Glacier, based on demand.

RMT is not currently a park concessioner, and the amount of service provided to the Glacier area is very minimal and only in response to specific traveler requests.

- **Eagle Transit** is a local service in Flathead County with municipal authority in Kalispell, Whitefish, and Columbia Falls.

Eagle Transit began as a dial-a-ride service and contract service, but now provides fixed routes with some deviation based upon the needs of the riders. Services include a city bus route (Kalispell), a limited service between towns based on demand (two days a week, twice a day), a subsidized taxi service, and a broker for carpool/vanpools. The service has eight buses (two more to arrive in the near future) and about 50,000 boardings per year. Eighty percent of the passengers are elderly or disabled, as Eagle Transit began as a service for these groups. The primary focus has become the regional services provided Monday through Friday. No regional service is provided on the weekends.

Eagle Transit is not currently a park concessioner, and the amount of service provided to the Glacier area is very minimal and only in response to specific traveler requests.

- **Other transit providers.** Three other transit providers operate in the area, providing small-scale or outlying services. Rimrock Stage/Rimrock Trailways Whitefish is a transportation provider that makes connections between Missoula and Kalispell, stopping at Whitefish. One round-trip is made daily, and fares for riders are \$20 each way. Blackfeet Transit operates out of Browning and serves the Blackfeet Nation and is geared toward the needs of the tribal members. The Blackfeet Transit service is seldom, if ever, used by Glacier tourists or other travelers. Brewster Transportation provides bus service between Calgary and Waterton, Canada three times per week in the summer.

Visitor Facilities, Amenities, and Services

There are many facilities, amenities, and services provided within Glacier to serve its visitors and/or enhance their experience in the park. These are described below in order to set a context for discussions presented later in this study.

Parking and Pullouts

Parking in Glacier has become a major source of discussion and debate as parking areas become more crowded, exceeding capacity in some areas. Facilities range from large parking areas accommodating over 200 vehicles, to small turnouts with a capacity of only one or two vehicles (see Appendix C for a complete inventory of parking areas and pullouts along Going-to-the-Sun Road). Though there is no strict definition by which to classify an area as either parking or pullout, parking areas are usually larger and used for longer periods of time while drivers may be far from their car or gone for an extended period (visitor centers, trailheads, picnic areas, etc.) while pullouts tend to be used for shorter periods of time (scenic vistas, short walks, interpretive signing, etc.). Parking spaces are generally, though not always, designated with striping at parking areas while they may or may not be at pullouts.



Parking lots are increasingly congested during peak periods, as illustrated by this facility at Logan Pass Visitor Center.

The total number of parking spaces along Glacier's main roads are as follows. These numbers include both parking areas and pullouts along the road, but do not include parking provided at major developed areas. The data presented for Going-to-the-Sun Road, Camas Road, and Two Medicine Road were collected specifically for this study and are considered very accurate. The data for Chief Mountain Road and Many Glacier Road was obtained from another source and its accuracy is considered less assured.

- Going-to-the-Sun Road (1,687 spaces)
- Camas Road (80 spaces)
- Chief Mountain Road (26 spaces)
- Many Glacier Road (49 spaces)
- Two Medicine Road (145 parking spaces)

Pedestrian Trails

There are many trails throughout the park dedicated to pedestrian and equestrian use. Glacier contains approximately 743 miles of trails, 8 paved and 735 unpaved. There are six designated nature trails within the park, two of which are fully ADA accessible (Trail of the Cedars and Running Eagle Falls). Figure 4 shows the location of trailheads along Going-to-the-Sun Road.

Some major developed areas have walkways that lead from parking areas to attractions and visitor facilities. Also, there are short sections of sidewalk at most formal pullout areas and hiking trailheads. Some pedestrian crossing areas have been designated by painted crossings on the roadway and posted warning signs.

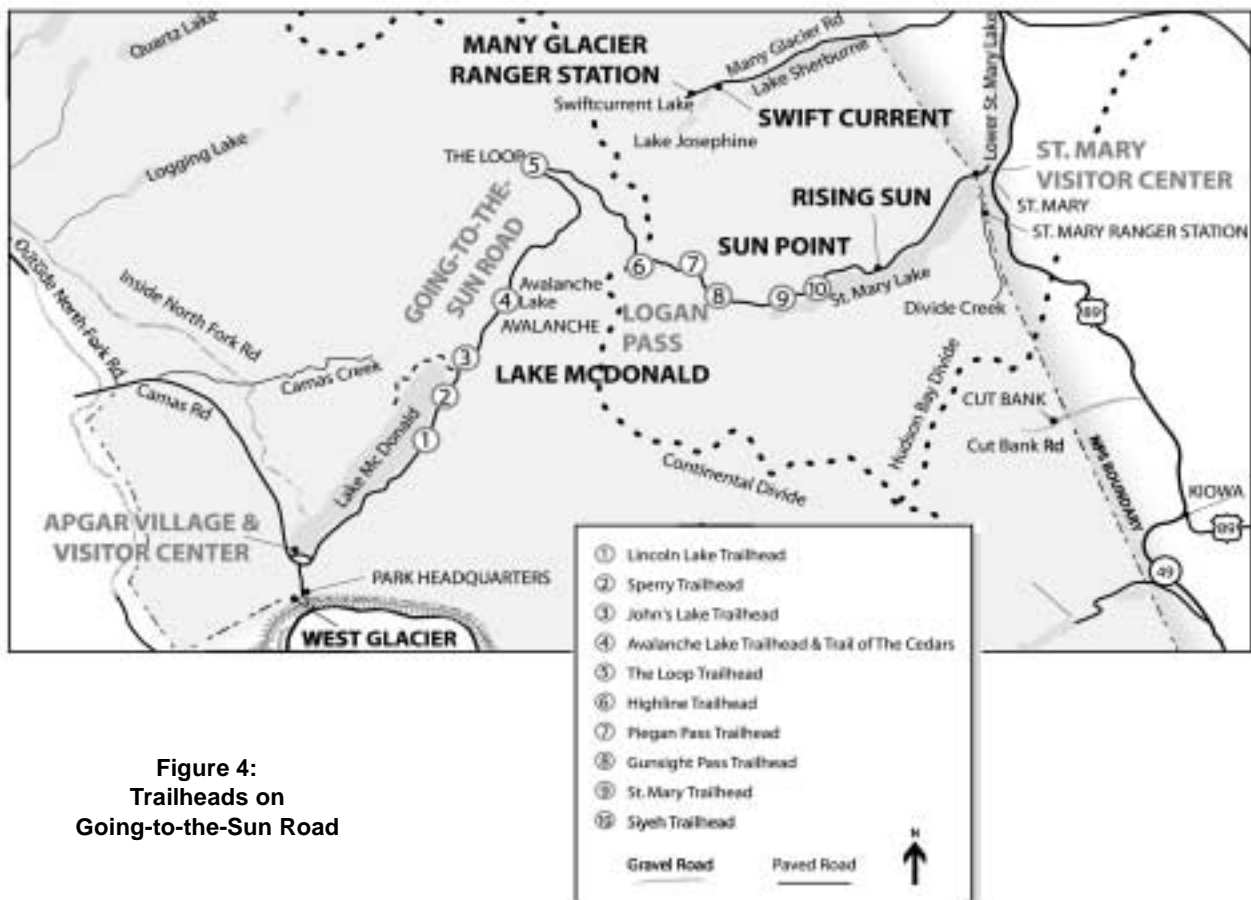


Figure 4:
Trailheads on
Going-to-the-Sun Road



Comfort stations are located throughout the park. This one, which includes an exhibit area, is located on the east side of Going-to-the-Sun Road, about two miles west of Baring Creek at Grizzly Point.

Comfort Stations

Comfort stations are available throughout the park (Figure 5), and an inventory of the number of sites along Going-to-the-Sun Road follows. Comfort stations are located in all campgrounds as well as in other areas of the park in limited numbers.

Apgar Picnic Area	2 women's stalls, 2 men's stalls
Sprague Creek (Day Use)	2 women's stalls, 2 men's stalls
Avalanche Creek (Day Use)	2 women's stalls, 2 men's stalls at picnic area
Logan Creek	1 women's stall, 1 men's stall
The Loop.....	usually 3 to 4 porta-potties, seasonal
Logan Pass*	8 women's stalls, 8 men's stalls
Grizzly Point*	1 women's stall, 1 unisex stall
Sun Point	1 women's stall, 1 men's stall
Rising Sun picnic and launch.....	2 women's stalls and 2 men's stalls at each
St. Mary area	2 women's stalls, 2 men's stalls at Visitor Center

*Fully ADA-accessible

This list does not include facilities at campgrounds. Apgar Village, Lake McDonald, Rising Sun, and campgrounds have additional facilities.

Some areas of the park are not equipped with plumbing or electricity and have the more primitive types of facilities, while other areas are equipped with amenities such as flush toilets.

Map of Going-to-the-Sun Road Comfort Stations

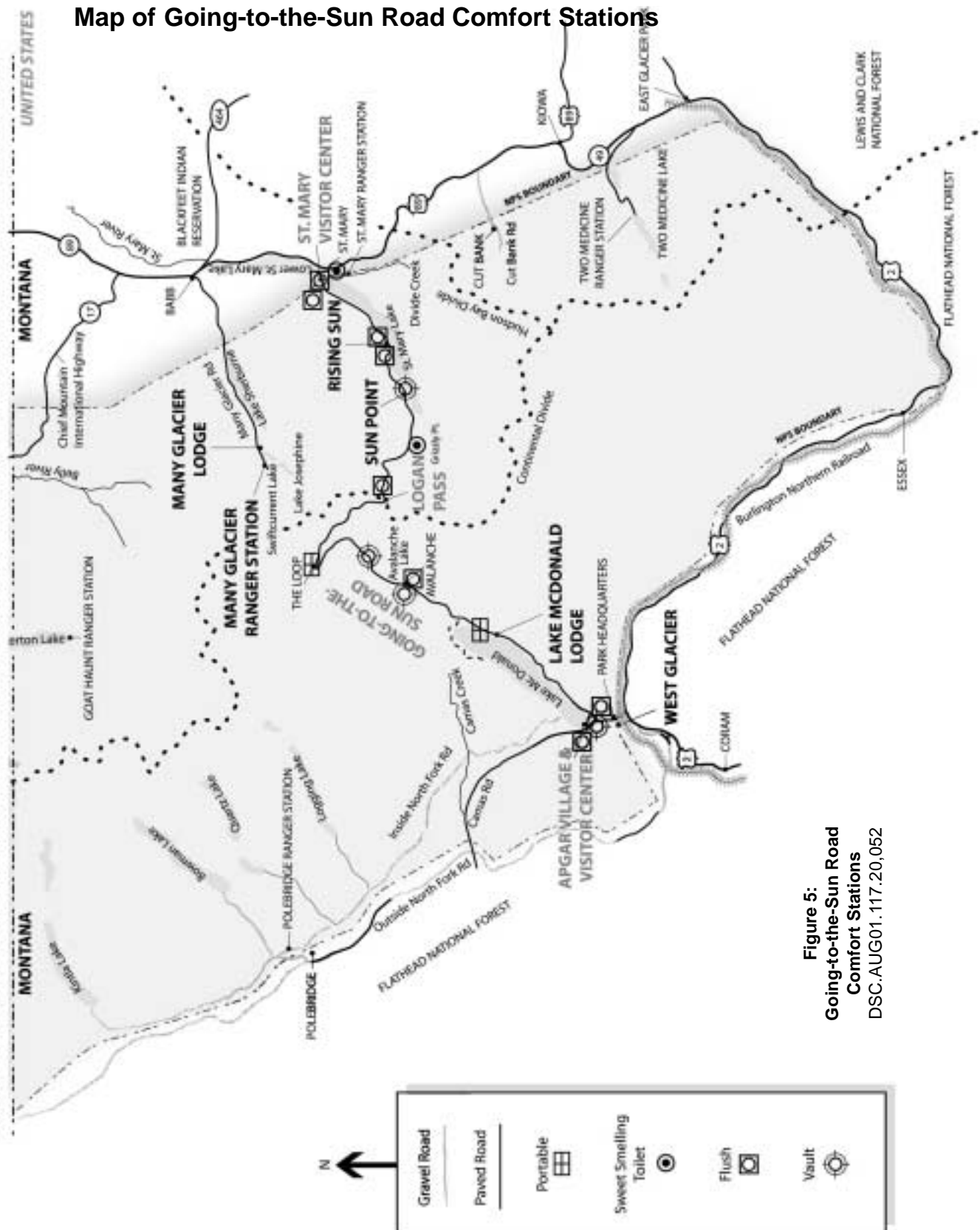


Figure 5:
Going-to-the-Sun Road
Comfort Stations
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Campgrounds

Glacier has thirteen class A or class B campgrounds (see Figure 6). Class A campgrounds are accessed by a paved road, have running potable water, flush toilets, and waste disposal. Class B campgrounds are accessed by gravel roads, have outdoor toilet facilities, and potable water from a pump. Numerous backcountry camping areas are also available throughout the park; these are accessed by hiking trails only. The class A and class B facilities are listed below with their capacities (number of sites).

Class A:

- Apgar - 196
- Fish Creek - 180
- Sprague Creek- 25
- Avalanche Creek - 87
- Rising Sun - 83
- St. Mary - 148
- Two Medicine - 99
- Many Glacier - 112

Subtotal: 930

Class B:

- Logging Creek - 8
- Quartz Creek - 7
- Bowman Lake - 48
- Kintla Lake - 13
- Cut Bank- 19

Subtotal: 95

Total (Class A and B): 1,025



Class A and B campgrounds provide a mix of tent and RV accommodations.

Lodging

Lodging capacities include hotel facilities within the park (see Figure 6). All of these facilities are run by the GPI concession. Approximate capacities for each of these facilities are listed below (these numbers assume that each bed is used to capacity, i.e., each single sleeps one person and each double, queen, or king bed sleeps two people).

Lake McDonald Lodge

- Total rooms - 100
- Total capacity – 335

Village Inn

- Total rooms – 36
- Total capacity – 138

Swiftcurrent

- Total rooms – 88

- Total capacity – 271

Rising Sun

- Total rooms – 72
- Total capacity – 226

Many Glacier Hotel

- Total rooms – 215
- Total capacity – 557

Total Rooms: 511

Total Capacity: 1,527

Visitor Centers/Ranger Stations

There are three visitor centers within the park (see Figure 6), differing in function and level of use. (Information presented on capacities is based on NPS staff observations.)

Apgar Visitor Center (at the west end of the Road) is located in a small building (a converted two-bedroom house) in Apgar Village. About 190,000 visitors per year come through this visitor center, which has no dedicated parking and is located in a very crowded area. Existing services include exhibits, displays, information, and book sales. Based on staff observations, approximately 30 people in the building results in crowded conditions. A new Discovery Center/ Museum has been proposed in the area to take the place of this visitor center and provide expanded services. The Apgar Village area is being addressed in the separate Commercial Services Plan.

Logan Pass Visitor Center was originally built as a warming hut and has been gradually transformed into a visitor center. It provides restrooms, exhibits, information, and book sales. (This is the primary book outlet for the Glacier Natural History Association.) Logan Pass Visitor Center is one of the major points of contact with NPS personnel for visitors and many times provides the first opportunity visitors have to contact a ranger (other than at fee stations). It is also one of the only spots in the park with exhibits emphasizing the alpine ecosystem. Park staff were unable to provide an estimate of the capacity of this visitor center.

St. Mary Visitor Center is the largest visitor center in the park. This center has displays, exhibits, information, books, a twelve-minute park orientation video, restrooms, and a ranger-staffed desk for backcountry information/permits. Based on staff observations, between the lobby/sales area, the exhibits area, and the auditorium (200 seats), the building can accommodate several hundred people. The lobby area is occasionally congested, but the auditorium is almost always empty.

Ranger Stations and other similar facilities include the park headquarters, Many Glacier Ranger Station, and Polebridge Ranger Station. These facilities are provided for the visitor so that they can ask questions of Glacier staff; obtain brochures, maps, and other written materials about the park; and get an overall feeling for the type of experience they would like to have in the park.

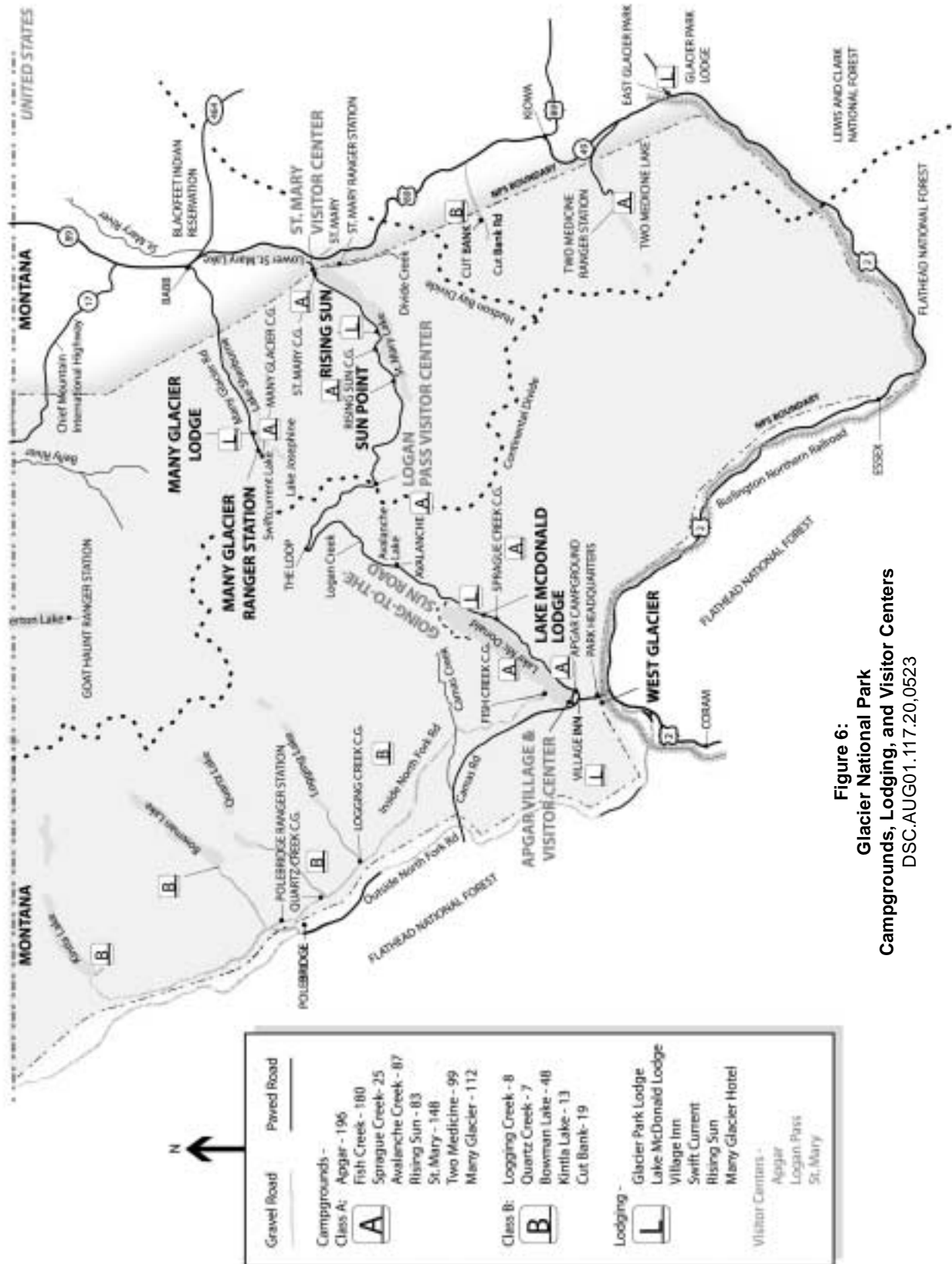


Figure 6:
Glacier National Park
Campgrounds, Lodging, and Visitor Centers
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Picnic Areas

Glacier has ten established picnic areas (see Figure 7). The number of picnic sites at each area is as follows:

Apgar	17
Avalanche	26
Sprague Creek	17
Sun Point	8
Rising Sun	5
Two Medicine	11
Walton	6
Fish Creek	8
Bowman	8
Many Glacier	12

The park has no established guidelines or minimum criteria for picnic facilities; therefore, the type and quality of facilities varies from site to site. Some have potable water, most have comfort stations, and all have picnic tables. All except Sun Point have fire grates.

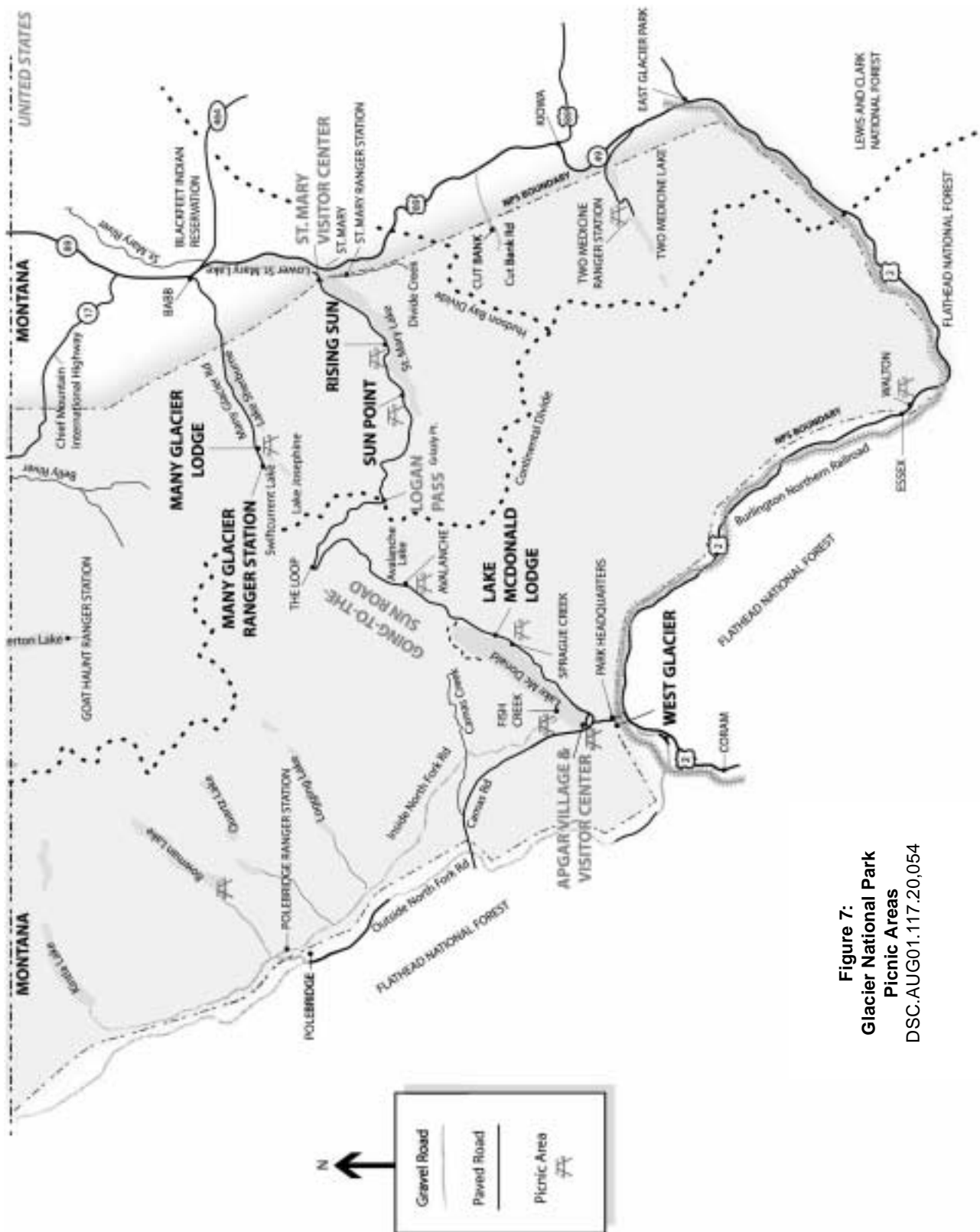


Figure 7:
Glacier National Park
Picnic Areas
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Signs

Signs are used for many different purposes in the park. The three main categories include traffic (warning and regulatory), directional/informational, and interpretive. An inventory of the traffic signage in the park includes 306 warning signs, 347 regulatory signs, and 477 directional/informational signs (1,130 total). Interpretive signage along Going-to-the-Sun Road (Figure 8) consists of eleven wayside exhibits (not including those well off the Road at Apgar or the Logan Pass Visitor Center). One or two additional interpretive signs are planned, but not yet in place, at Oberlin Bend.



Signs provide interpretive data for visitors, as shown at Hidden Lake Overlook (above). They also provide directions (left) and regulatory information.

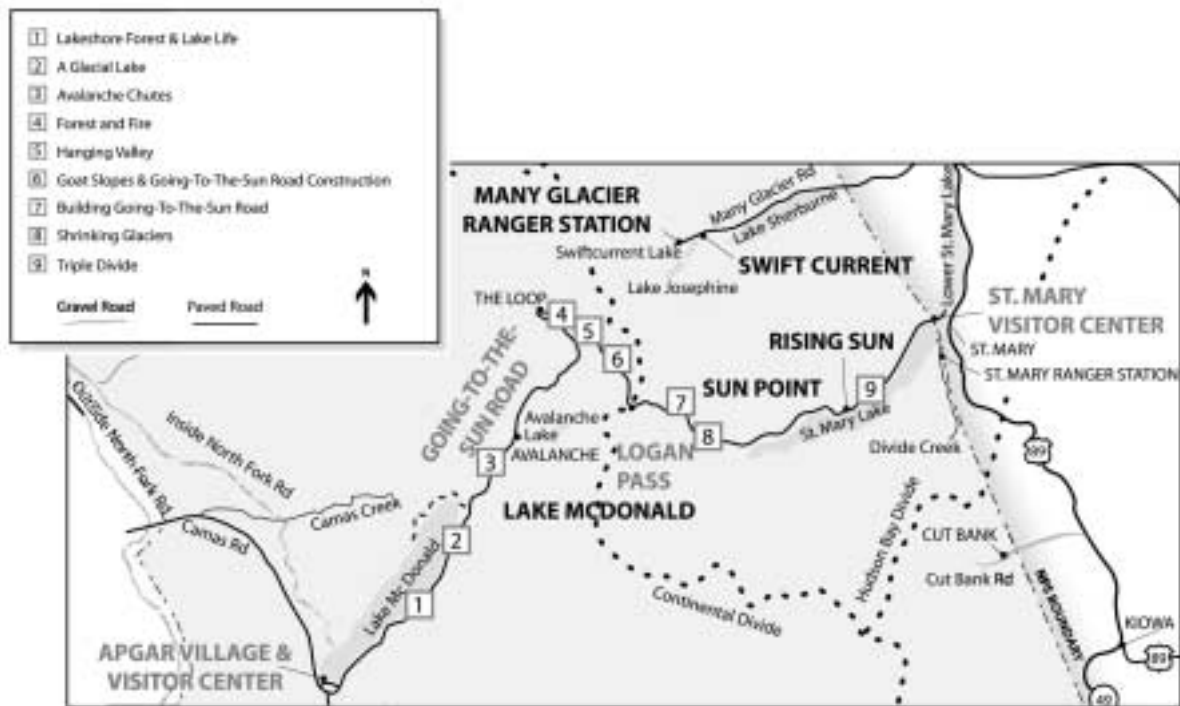


Figure 8:
Going-to-the-Sun Road

Other Services

No service stations are available in the park, requiring visitors to plan ahead for gasoline. Groceries, camp supplies, dry goods, and restaurants are available at Apgar Village, Lake McDonald Lodge, Rising Sun, St. Mary, and Many Glacier.

Winter Use

During the winter, snow closes most of the park's roads; however, the park remains open and visitor use continues. The Going-to-the-Sun Road is plowed as far as the Lake McDonald Lodge on the west side and as far as Rising Sun on the east side. Camas Road is also plowed as far north as the McDonald Creek bridge area. The points of road closure serve as staging areas for winter use activities, predominantly cross-country skiing and snowshoeing.

Orientation

Orientation is provided at visitor centers, ranger stations, and entry gates in the form of brochures, maps, park staff, and signage that describe park features and help visitors navigate the park.

Radio Information

There are two radio transmitters that provide traveler information for the park. These stations are broadcast from West Glacier and St. Mary at 1610 am.

Law Enforcement and Emergency Services

The NPS provides emergency medical services within the park. Hospitals are located in Cut Bank, Kalispell, Whitefish, and Choteau. Glacier also has 94 EMS providers.

The NPS has exclusive jurisdiction to provide law enforcement and works in cooperation with other agencies in surrounding areas to lend support in emergencies. In 1999, the following law enforcement-related activities took place:

- 933 traffic violations
- 454 natural resource violations
- 25 incidents requiring assistance to other agencies
- 968 incidents requiring assistance to citizens
- 131 emergency medical responses
- 41 search and rescue incidents
- 2 fatalities: one fall and one climbing accident

Fees

The park takes part in a fee demonstration program with the Department of the Interior and the NPS. Eighty percent of the money collected in the park stays within the park to address the backlog of repair and maintenance projects, to provide a higher quality park experience, and to enhance the protection of resources. The remaining 20 percent is distributed for use by other units of the NPS. In 2000 the following rates were charged to visitors entering the park:

- Vehicle pass - \$10
- Single person pass - \$5
- Glacier annual pass - \$20
- Golden Age Passport - \$10 (lifetime pass for U.S. citizens 62 years and older)
- National Parks Pass - \$50 (valid at all national parks with an entrance fee for one year from month of purchase)

Visitor Use Statistics/Information

Total Visitors

The following figures represent current (2000) data for Glacier visitation park-wide.

- Total visitors in 2000: 1,729,000
- High volume months: 60 percent of visitors come during July and August
- Total visitors in July, 2000: 515,000
- Total visitors in August, 2000: 523,000
- Average daily visitation in July and August: 16,700
- Percent of visitors from the state of Montana: approximately 19 percent

Figure 9 shows annual visitation at Glacier from 1979 through 2000, illustrating recent trends in park visitation.

Recent trends in visitation are somewhat erratic, but overall steady increases and decreases have taken place with the exception of the mid-1980's, which shows an abrupt increase in visitation from 1983 to 1984 of about 600,000 visitors. Abrupt decreases also take place for two years after this period. Park staff have indicated that difficulties with counting equipment in 1984,

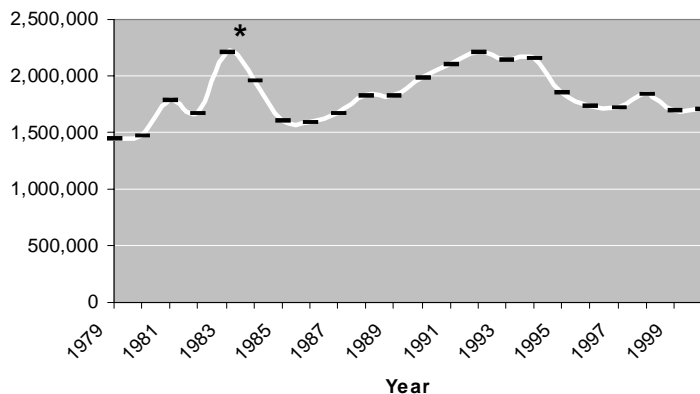


Figure 9: Glacier National Park Annual Visitation, 1979-2000

**See note in text*

not actual visitors, account for this apparent jump in visitation and that the 1984 visitation number should be totally disregarded.

Another large decrease took place from 1994 to 1995, which might be attributed to a tunnel washout. The washout led to one-lane traffic and slow-moving traffic conditions. The road also opened later than usual that year, possibly adding to the decline.

Figure 10 shows seasonal fluctuations for visitation. These fluctuations are very consistent from year to year. The data shown are from 2000. Appendix H presents additional information on visitor traffic statistics and trends.

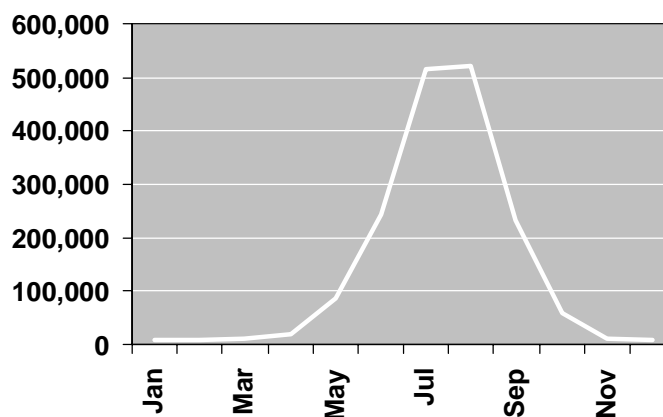


Figure 10: Glacier National Park, Seasonal Fluctuations in Visitation, 2000

Visitor Use Profile

A survey of visitors was conducted in 2000 (see *Glacier National Park Survey of Visitors*, Coley/Forrest, 2000¹). Appendix D contains a list of those survey questions and responses relevant to this discussion. Table 3 provides demographic information from this survey of visitors.

1. Complete results of the *Glacier National Park Survey of Visitors* prepared by Coley/Forrest, 2000 are contained in Appendix A of the *Going-to-the-Sun Road Socioeconomic Study*.

**Table 3: Demographic Information of Respondents from
Glacier National Park Survey of Visitors**

Demographic Information	
Average Age	50
Sex	55% Female 45% Male
Income	< \$25,000 (11%) \$25,000 - \$50,000 (23%) \$50,000 - \$75,000 (22%) \$75,000 - \$100,000 (18%) \$100,000 - \$150,000 (13%) >\$150,000 (13%)
Education Level	74% college-educated
Occupation	38% Professional 21% Retired 9% Managerial 32% Other (all other categories do not exceed 7% individually)
Address	90% from U.S. 10% from foreign country 19% of total from MT
Average Travel Party Size	2.83 (for the survey period, 2.9 is used as the park standard)
Average Daily Expenditures	\$200

Visitor Activities and Preferences

The following figures represent current (1999-2000) data on visitor activities or preferences within Glacier:

- 11 percent spent nights camping in one of Glacier's thirteen campgrounds.
- More than 29,800 person-nights were spent in the backcountry.
- 6 percent participated in guided walks, talks, and campfire programs.
- 40 percent were received at Glacier visitor education centers.
- 85 percent stopped in the Logan Pass area.

For the survey of visitors, 1,407 respondents were asked to state their primary reason for visiting the park on that particular trip. The results were as follows:

Chapter 1: Existing Conditions

- 63 percent to view the scenery
- 16 percent to participate in recreation (hiking, biking, boating, camping, etc.)
- 7 percent other
- 5 percent to get away from the normal routine
- 4 percent to enjoy family and/or friends
- 3 percent to view wildlife
- 2 percent to take photographs

Length of Visit

The average number of days and nights spent in the park breaks down as follows:

Table 4: Time Spent in Glacier National Park

	Total Days or Nights					
	0	1	2	3	4-5	6+
Spent the day	-	34%	20%	14%	15%	17%
Spent the night	32%	14%	16%	9%	15%	14%

Visitor Perceptions/Satisfaction Levels

The 2000 *Survey of Visitors* also gathered information about preferences for specific types of facilities in Glacier, asking what types of services or facilities visitors would like to see more (or less) of, and what services or facilities would induce them to stay longer. Results from 1,319 respondents are as follows:

Table 5: Visitor Preferences for Services and Facilities

Service or Facility	Would like to see. . .	Would induce a longer stay
More stops along the road	24%	-
More informational signs and viewing areas	21%	24%
More hiking trails	18%	32%
More bike trails	11%	17%
More planned or guided tours	11%	19%
More/better services	9%	13%

Table 5: Visitor Preferences for Services and Facilities (Continued)

Service or Facility	Would like to see. . .	Would induce a longer stay
Less expensive services	-	30%
More/better lodging	8%	17%
Less expensive lodging	-	29%
Less services and facilities	7%	-
More activities for children	5%	9%
More campgrounds	-	16%
None	29%	-
Other	21%	18%

Percent of visitors to different areas of the park

The 2000 *Survey of Visitors* inquired about visitor travel to different areas of the park and amounts of time spent at each area. This included specific areas along the Road and other geographic areas. The results are shown in Table 6.

Table 6: Time Spent in Specific Areas Along the Road

Area	Percent of respondents who stopped	Highest % of respondents and length of time stopped
Apgar	48%	28% 15-30 minutes
Lake McDonald	63%	25% 15-30 minutes
Avalanche	40%	32% 1-4 hours
McDonald Creek/Overlook	29%	45% < 15 minutes
West Side Tunnel	26%	77% < 15 minutes
The Loop	35%	54% < 15 minutes
Big Bend	18%	63% < 15 minutes
Oberlin Bend	12%	65% < 15 minutes
Logan Pass	76%	29% 1-4 hours
Siyeh Bend	21%	58% < 15 minutes
Jackson Glacier Overlook	36%	68% < 15 minutes

Table 6: Time Spent in Specific Areas Along the Road (Continued)

Area	Percent of respondents who stopped	Highest % of respondents and length of time stopped
Sunrift Gorge	29%	43% < 15 minutes
Sun Point	29%	43% < 15 minutes
Rising Sun	32%	41% < 15 minutes
St. Mary Visitor Center	41%	37% 15-30 minutes

Source: Glacier National Park Survey of Visitors, Coley/Forrest, 2000

Other geographic areas in Glacier were also surveyed for percentage of visitors visiting each area and the amount of time spent there. Table 7 shows the results from 1,418 respondents total. Only the highest percentage is reported for amount of time spent. The average estimated time spent for daily recreation is also shown.

Table 7: Visitors to other Geographic Areas in Glacier National Park

Area	Percent of respondents who stopped	Highest % of respondents and length of time stopped	Respondents who did not stop due to lack of parking	Average estimated time spent for daily recreation
Polebridge/ Northfork	8%	28% 1-4 hours	6	3 hours, 50 minutes
Many Glacier/ Swiftcurrent	39%	59% 4 hours – 1 day	6	4 hours, 20 minutes
Two Medicine	18%	36% 1-4 hours	7	3 hours, 5 minutes
Chief Mountain	14%	66% < 1 hour	6	1 hour, 20 minutes
Camas Road	8%	42% 1-4 hours	5	2 hours, 50 minutes
Waterton, Canada	25%	63% 4 hours – 1 day	4	4 hours, 35 minutes

Source: Glacier National Park Survey of Visitors, Coley/Forrest, 2000